

Application No. 10/069,900
Reply to Office Action of June 4, 2003

Amendments to and Listing of the Claims

Please amend claims 1 and 4, and cancel claim 2 as follows:

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1. (Currently Amended) A polymer-electrolyte fuel cell, comprising:
an electrolyte membrane-electrode assembly comprising a polymer-electrolyte membrane, and a pair of gas-diffusion electrodes sandwiching said polymer-electrolyte membrane;
a first electroconductive separator having a gas channel for supplying an oxidant gas to one of the gas-diffusion electrodes of said pair; and
a second electroconductive separator having a gas channel for supplying a fuel gas to the other of the gas-diffusion electrodes of said pair; wherein
the polymer-electrolyte fuel cell is characterized in that
at least one of said first electroconductive separator and said second electroconductive separator comprises a metal substrate and an electroconductive resin layer provided on said metal substrate and contacting said electrolyte membrane-electrode assembly, and
said electroconductive resin layer comprises a resin having water-repellant or basic radicals, and an electroconductive particulate substance which comprises a carbon powder having a specific surface area of less than 100 m²/g.
2. (Cancelled)
3. (Original) The polymer-electrolyte fuel cell in accordance with claim 1, wherein said electroconductive particulate substance comprises vitreous carbon.
4. (Currently Amended) The polymer-electrolyte fuel cell in accordance with claim 1, having, between said metal substrate and said electroconductive resin layer, further comprising a layer including at least one selected from the group consisting of: metallic Zn, metallic Sn, metallic Al, Cr-containing compounds, Mo-containing compounds and W-containing compounds, between said metal substrate and said electroconductive resin layer.